RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: _10/550,671_

Source: _Pur/10_

Date Processed by STIC: _10/7/05_

ENTERED

RAW SEQUENCE LISTING   DATE: 10/07/2005
PATENT APPLICATION: **US/10/550,671**   TIME: 09:26:11

Input Set : **A:\toyam114.007apc.txt**
Output Set: **N:\CRF4\10072005\J550671.raw**

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   3 <110> APPLICANT: Yamaoka, Hideaki
   4        Hoshijima, Mitsuhiro
   5        Kawase, Shido
   6        Kurosaka, Keisuke
   8 <120> TITLE OF INVENTION: Method for producing glucose dehydrogenase
  10 <130> FILE REFERENCE: TOYA114.007APC
C--> 12 <140> CURRENT APPLICATION NUMBER: US/10/550,671
C--> 12 <141> CURRENT FILING DATE: 2005-09-26
  12 <150> PRIOR APPLICATION NUMBER: PCT/JP2004/004074
  13 <151> PRIOR FILING DATE: 2004-03-24
  15 <150> PRIOR APPLICATION NUMBER: JP 2003-82739
  16 <151> PRIOR FILING DATE: 2003-03-25
  18 <160> NUMBER OF SEQ ID NOS: 15
  20 <170> SOFTWARE: PatentIn Ver. 2.0
  22 <210> SEQ ID NO: 1
  23 <211> LENGTH: 2467
  24 <212> TYPE: DNA
  25 <213> ORGANISM: Burkhorderia cepacia
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  29 <222> LOCATION: (258)..(761)
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  42 tacgaatggc tgacacattg aatggactat aaaaccattg tccgttccgg aatgtgcgcg 180
  43 tacatttcag gtccgcgccg atttttgaga aatatcaagc gtggttttcc cgaatccggt 240
  44 gttcgagaga aggaaac atg cac aac gac aac act ccc cac tcg cgt cgc     290
  45                     Met His Asn Asp Asn Thr Pro His Ser Arg Arg
  46                       1               5                  10
  47 cac ggc gac gca gcc gca tca ggc atc acg cgg cgt caa tgg ttg caa   338
  48 His Gly Asp Ala Ala Ala Ser Gly Ile Thr Arg Arg Gln Trp Leu Gln
  49             15                  20                  25
  50 ggc gcg ctg gcg ctg acc gca gcg ggc ctc acg ggt tcg ctg aca ttg   386
  51 Gly Ala Leu Ala Leu Thr Ala Ala Gly Leu Thr Gly Ser Leu Thr Leu
  52         30                  35                  40
  53 cgg gcg ctt gca gac aac ccc ggc act gcg ccg ctc gat acg ttc atg   434
  54 Arg Ala Leu Ala Asp Asn Pro Gly Thr Ala Pro Leu Asp Thr Phe Met
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$P.6$

Input Set : A:\toyam114.007apc.txt
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55       45                    50                    55
56 acg ctt tcc gaa tcg ctg acc ggc aag aaa ggg ctc agc cgc gtg atc   482
57 Thr Leu Ser Glu Ser Leu Thr Gly Lys Lys Gly Leu Ser Arg Val Ile
58 60                    65                    70                    75
59 ggc gag cgc ctg ctg cag gcg ctg cag aag ggc tcg ttc aag acg gcc   530
60 Gly Glu Arg Leu Leu Gln Ala Leu Gln Lys Gly Ser Phe Lys Thr Ala
61               80                    85                    90
62 gac agc ctg ccg cag ctc gcc ggc gcg ctc gcg tcc ggt tcg ctg acg   578
63 Asp Ser Leu Pro Gln Leu Ala Gly Ala Leu Ala Ser Gly Ser Leu Thr
64               95                    100                   105
65 cct gaa cag gaa tcg ctc gca ctg acg atc ctc gag gcc tgg tat ctc   626
66 Pro Glu Gln Glu Ser Leu Ala Leu Thr Ile Leu Glu Ala Trp Tyr Leu
67          110                   115                   120
68 ggc atc gtc gac aac gtc gtg att acg tac gag gaa gca tta atg ttc   674
69 Gly Ile Val Asp Asn Val Val Ile Thr Tyr Glu Glu Ala Leu Met Phe
70      125                   130                   135
71 ggc gtc gtg tcc gat acg ctc gtg atc cgt tcg tat tgc ccc aac aaa   722
72 Gly Val Val Ser Asp Thr Leu Val Ile Arg Ser Tyr Cys Pro Asn Lys
73 140                   145                   150                   155
74 ccc ggc ttc tgg gcc gac aaa ccg atc gag agg caa gcc tg atg gcc    769
75 Pro Gly Phe Trp Ala Asp Lys Pro Ile Glu Arg Gln Ala    Met Ala
76               160                   165                   170
77 gat acc gat acg caa aag gcc gac gtc gtc gtc gtt gga tcg ggt gtc   817
78 Asp Thr Asp Thr Gln Lys Ala Asp Val Val Val Val Gly Ser Gly Val
79               175                   180                   185
80 gcg ggc gcg atc gtc gcg cat cag ctc gcg atg gcg ggc aag gcg gtg   865
81 Ala Gly Ala Ile Val Ala His Gln Leu Ala Met Ala Gly Lys Ala Val
82          190                   195                   200
83 atc ctg ctc gaa gcg ggc ccg cgc atg ccg cgc tgg gaa atc gtc gag   913
84 Ile Leu Leu Glu Ala Gly Pro Arg Met Pro Arg Trp Glu Ile Val Glu
85          205                   210                   215
86 cgc ttc cgc aat cag ccc gac aag atg gac ttc atg gcg ccg tac ccg   961
87 Arg Phe Arg Asn Gln Pro Asp Lys Met Asp Phe Met Ala Pro Tyr Pro
88      220                   225                   230
89 tcg agc ccc tgg gcg ccg cat ccc gag tac ggc ccg ccg aac gac tac  1009
90 Ser Ser Pro Trp Ala Pro His Pro Glu Tyr Gly Pro Pro Asn Asp Tyr
91 235                   240                   245                   250
92 ctg atc ctg aag ggc gag cac aag ttc aac tcg cag tac atc cgc gcg  1057
93 Leu Ile Leu Lys Gly Glu His Lys Phe Asn Ser Gln Tyr Ile Arg Ala
94               255                   260                   265
95 gtg ggc ggc acg acg tgg cac tgg gcc gcg tcg gcg tgg cgc ttc att  1105
96 Val Gly Gly Thr Thr Trp His Trp Ala Ala Ser Ala Trp Arg Phe Ile
97          270                   275                   280
98 ccg aac gac ttc aag atg aag agc gtg tac ggc gtc ggc cgc gac tgg  1153
99 Pro Asn Asp Phe Lys Met Lys Ser Val Tyr Gly Val Gly Arg Asp Trp
100           285                   290                   295
101 ccg atc cag tac gac gat ctc gag ccg tac tat cag cgc gcg gag gaa  1201
102 Pro Ile Gln Tyr Asp Asp Leu Glu Pro Tyr Tyr Gln Arg Ala Glu Glu
103      300                   305                   310
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104 gag ctc ggc gtg tgg ggc ccg ggc ccc gag gaa gat ctg tac tcg ccg   1249
105 Glu Leu Gly Val Trp Gly Pro Gly Pro Glu Glu Asp Leu Tyr Ser Pro
106 315                 320                 325                 330
107 cgc aag cag ccg tat ccg atg ccg ccg ctg ccg ttg tcg ttc aac gag   1297
108 Arg Lys Gln Pro Tyr Pro Met Pro Pro Leu Pro Leu Ser Phe Asn Glu
109                 335                 340                 345
110 cag acc atc aag acg gcg ctg aac aac tac gat ccg aag ttc cat gtc   1345
111 Gln Thr Ile Lys Thr Ala Leu Asn Asn Tyr Asp Pro Lys Phe His Val
112                 350                 355                 360
113 gtg acc gag ccg gtc gcg cgc aac agc cgc ccg tac gac ggc cgc ccg   1393
114 Val Thr Glu Pro Val Ala Arg Asn Ser Arg Pro Tyr Asp Gly Arg Pro
115             365                 370                 375
116 act tgt tgc ggc aac aac aac tgc atg ccg atc tgc ccg atc ggc gcg   1441
117 Thr Cys Cys Gly Asn Asn Asn Cys Met Pro Ile Cys Pro Ile Gly Ala
118     380                 385                 390
119 atg tac aac ggc atc gtg cac gtc gag aag gcc gaa cgc gcc ggc gcg   1489
120 Met Tyr Asn Gly Ile Val His Val Glu Lys Ala Glu Arg Ala Gly Ala
121 395                 400                 405                 410
122 aag ctg atc gag aac gcg gtc gtc tac aag ctc gag acg ggc ccg gac   1537
123 Lys Leu Ile Glu Asn Ala Val Val Tyr Lys Leu Glu Thr Gly Pro Asp
124                 415                 420                 425
125 aag cgc atc gtc gcg gcg ctc tac aag gac aag acg ggc gcc gag cat   1585
126 Lys Arg Ile Val Ala Ala Leu Tyr Lys Asp Lys Thr Gly Ala Glu His
127             430                 435                 440
128 cgc gtc gaa ggc aag tat ttc gtg ctc gcc gcg aac ggc atc gag acg   1633
129 Arg Val Glu Gly Lys Tyr Phe Val Leu Ala Ala Asn Gly Ile Glu Thr
130             445                 450                 455
131 ccg aag atc ctg ctg atg tcc gcg aac cgc gat ttc ccg aac ggt gtc   1681
132 Pro Lys Ile Leu Leu Met Ser Ala Asn Arg Asp Phe Pro Asn Gly Val
133     460                 465                 470
134 gcg aac agc tcg gac atg gtc ggc cgc aac ctg atg gac cat ccg ggc   1729
135 Ala Asn Ser Ser Asp Met Val Gly Arg Asn Leu Met Asp His Pro Gly
136 475                 480                 485                 490
137 acc ggc gtg tcg ttc tat gcg agc gag aag ctg tgg ccg ggc cgc ggc   1777
138 Thr Gly Val Ser Phe Tyr Ala Ser Glu Lys Leu Trp Pro Gly Arg Gly
139                 495                 500                 505
140 ccg cag gag atg acg tcg ctg atc ggt ttc cgc gac ggt ccg ttc cgc   1825
141 Pro Gln Glu Met Thr Ser Leu Ile Gly Phe Arg Asp Gly Pro Phe Arg
142             510                 515                 520
143 gcg acc gaa gcg gcg aag aag atc cac ctg tcg aac ctg tcg cgc atc   1873
144 Ala Thr Glu Ala Ala Lys Lys Ile His Leu Ser Asn Leu Ser Arg Ile
145             525                 530                 535
146 gac cag gag acg cag aag atc ttc aag gcc ggc aag ctg atg aag ccc   1921
147 Asp Gln Glu Thr Gln Lys Ile Phe Lys Ala Gly Lys Leu Met Lys Pro
148     540                 545                 550
149 gac gag ctc gac gcg cag atc cgc gac cgt tcc gca cgc tac gtg cag   1969
150 Asp Glu Leu Asp Ala Gln Ile Arg Asp Arg Ser Ala Arg Tyr Val Gln
151 555                 560                 565                 570
152 ttc gac tgc ttc cac gaa atc ctg ccg caa ccc gag aac cgc atc gtg   2017
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RAW SEQUENCE LISTING   DATE: 10/07/2005
PATENT APPLICATION: US/10/550,671   TIME: 09:26:11

Input Set : A:\toyam114.007apc.txt
Output Set: N:\CRF4\10072005\J550671.raw

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153 Phe Asp Cys Phe His Glu Ile Leu Pro Gln Pro Glu Asn Arg Ile Val
154                 575             580             585
155 ccg agc aag acg gcg acc gat gcg atc ggc att ccg cgc ccc gag atc   2065
156 Pro Ser Lys Thr Ala Thr Asp Ala Ile Gly Ile Pro Arg Pro Glu Ile
157             590             595             600
158 acg tat gcg atc gac gac tac gtg aag cgc ggc gcc gcg cat acg cgc   2113
159 Thr Tyr Ala Ile Asp Asp Tyr Val Lys Arg Gly Ala Ala His Thr Arg
160         605             610             615
161 gag gtc tac gcg acc gcc gcg aag gtg ctc ggc ggc acg gac gtc gtg   2161
162 Glu Val Tyr Ala Thr Ala Ala Lys Val Leu Gly Gly Thr Asp Val Val
163     620             625             630
164 ttc aac gac gaa ttc gcg ccg aac aat cac atc acg ggc tcg acg atc   2209
165 Phe Asn Asp Glu Phe Ala Pro Asn Asn His Ile Thr Gly Ser Thr Ile
166 635             640             645             650
167 atg ggc gcc gat gcg cgc gac tcc gtc gtc gac aag gac tgc cgc acg   2257
168 Met Gly Ala Asp Ala Arg Asp Ser Val Val Asp Lys Asp Cys Arg Thr
169             655             660             665
170 ttc gac cat ccg aac ctg ttc att tcg agc agc gcg acg atg ccg acc   2305
171 Phe Asp His Pro Asn Leu Phe Ile Ser Ser Ser Ala Thr Met Pro Thr
172         670             675             680
173 gtc ggt acc gta aac gtg acg ctg acg atc gcc gcg ctc gcg ctg cgg   2353
174 Val Gly Thr Val Asn Val Thr Leu Thr Ile Ala Ala Leu Ala Leu Arg
175         685             690             695
176 atg tcg gac acg ctg aag aag gaa gtc tgacc gtg cgg aaa tct act ctc 2403
177 Met Ser Asp Thr Leu Lys Lys Glu Val     Val Arg Lys Ser Thr Leu
178     700             705             710
179 act ttc ctc atc gcc ggc tgc ctc gcg ttg ccg ggc ttc gcg cgc gcg   2451
180 Thr Phe Leu Ile Ala Gly Cys Leu Ala Leu Pro Gly Phe Ala Arg Ala
181     715             720             725
182 gcc gat gcg gcc gat c                                             2467
183 Ala Asp Ala Ala Asp
184 730
186 <210> SEQ ID NO: 2
187 <211> LENGTH: 168
188 <212> TYPE: PRT
189 <213> ORGANISM: Burkhorderia cepacia
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194 Ala Ser Gly Ile Thr Arg Arg Gln Trp Leu Gln Gly Ala Leu Ala Leu
195             20              25              30
196 Thr Ala Ala Gly Leu Thr Gly Ser Leu Thr Leu Arg Ala Leu Ala Asp
197         35              40              45
198 Asn Pro Gly Thr Ala Pro Leu Asp Thr Phe Met Thr Leu Ser Glu Ser
199     50              55              60
200 Leu Thr Gly Lys Lys Gly Leu Ser Arg Val Ile Gly Glu Arg Leu Leu
201 65              70              75              80
202 Gln Ala Leu Gln Lys Gly Ser Phe Lys Thr Ala Asp Ser Leu Pro Gln
203             85              90              95
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204 Leu Ala Gly Ala Leu Ala Ser Gly Ser Leu Thr Pro Glu Gln Glu Ser
205         100             105             110
206 Leu Ala Leu Thr Ile Leu Glu Ala Trp Tyr Leu Gly Ile Val Asp Asn
207         115             120             125
208 Val Val Ile Thr Tyr Glu Glu Ala Leu Met Phe Gly Val Val Ser Asp
209     130             135             140
210 Thr Leu Val Ile Arg Ser Tyr Cys Pro Asn Lys Pro Gly Phe Trp Ala
211 145             150             155                 160
212 Asp Lys Pro Ile Glu Arg Gln Ala
213             165
214 <210> SEQ ID NO: 3
215 <211> LENGTH: 539
216 <212> TYPE: PRT
217 <213> ORGANISM: Burkhorderia cepacia
219 <400> SEQUENCE: 3
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222 Gly Val Ala Gly Ala Ile Val Ala His Gln Leu Ala Met Ala Gly Lys
223         20              25              30
224 Ala Val Ile Leu Leu Glu Ala Gly Pro Arg Met Pro Arg Trp Glu Ile
225     35              40              45
226 Val Glu Arg Phe Arg Asn Gln Pro Asp Lys Met Asp Phe Met Ala Pro
227     50              55              60
228 Tyr Pro Ser Ser Pro Trp Ala Pro His Pro Glu Tyr Gly Pro Pro Asn
229   65              70              75                  80
230 Asp Tyr Leu Ile Leu Lys Gly Glu His Lys Phe Asn Ser Gln Tyr Ile
231             85              90                  95
232 Arg Ala Val Gly Gly Thr Thr Trp His Trp Ala Ala Ser Ala Trp Arg
233         100             105             110
234 Phe Ile Pro Asn Asp Phe Lys Met Lys Ser Val Tyr Gly Val Gly Arg
235         115             120             125
236 Asp Trp Pro Ile Gln Tyr Asp Asp Leu Glu Pro Tyr Tyr Gln Arg Ala
237     130             135             140
238 Glu Glu Glu Leu Gly Val Trp Gly Pro Gly Pro Glu Glu Asp Leu Tyr
239 145             150             155                 160
240 Ser Pro Arg Lys Gln Pro Tyr Pro Met Pro Pro Leu Pro Leu Ser Phe
241             165             170             175
242 Asn Glu Gln Thr Ile Lys Thr Ala Leu Asn Asn Tyr Asp Pro Lys Phe
243         180             185             190
244 His Val Val Thr Glu Pro Val Ala Arg Asn Ser Arg Pro Tyr Asp Gly
245         195             200             205
246 Arg Pro Thr Cys Cys Gly Asn Asn Asn Cys Met Pro Ile Cys Pro Ile
247     210             215             220
248 Gly Ala Met Tyr Asn Gly Ile Val His Val Glu Lys Ala Glu Arg Ala
249 225             230             235                 240
250 Gly Ala Lys Leu Ile Glu Asn Ala Val Val Tyr Lys Leu Glu Thr Gly
251             245             250             255
252 Pro Asp Lys Arg Ile Val Ala Ala Leu Tyr Lys Asp Lys Thr Gly Ala
253         260             265             270
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         RAW SEQUENCE LISTING ERROR SUMMARY      DATE: 10/07/2005
         PATENT APPLICATION:  US/10/550,671      TIME: 09:26:12

         Input Set : A:\toyam114.007apc.txt
         Output Set: N:\CRF4\10072005\J550671.raw
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Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:6; Xaa Pos. 6,17,18,19,22
Seq#:11; Xaa Pos. 2,3

VERIFICATION SUMMARY   DATE: 10/07/2005
PATENT APPLICATION: **US/10/550,671**   TIME: 09:26:12

Input Set : **A:\toyam114.007apc.txt**
Output Set: **N:\CRF4\10072005\J550671.raw**

L:12 M:270 C: Current Application Number differs, Replaced Current Application No
L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:323 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0
M:341 Repeated in SeqNo=6
L:520 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:0